

### Remarks

Claims 1-10 are pending in the application, and new claims 11-13 have been added. Reconsideration and allowance of the application are respectfully requested.

The non-final Office Action dated October 31, 2007 lists the following objections and rejections: the drawings are objected to as Figure 1 should be designated as prior art; the drawings are objected to under 37 CFR 1.83(a); the abstract of the disclosure is objected to under 37 CFR 1.72(b); the disclosure is objected to due to informalities; claims 5-6 and 9 stand rejected under 35 U.S.C. § 112(2); claims 1-3 and 10 stand rejected under 35 U.S.C. § 103(a) over Lai (U.S. Patent No. 5,617,306) in view of Brakus (U.S. Patent No. 5,631,816); claim 4 stands rejected under 35 U.S.C. § 103(a) over Lai and Brakus in further view of Rozman (U.S. Patent No. 6,130,828); claims 5-6 stand rejected under 35 U.S.C. § 103(a) over Lai further in view of Brakus; and claims 7-8 stand rejected under 35 U.S.C. § 103(a) over Lai and Brakus in further view of Crooks (U.S. Patent No. 4,482,866).

Regarding the objection to Figure 1, Applicant has provided an amended copy of Figure 1 which is designated as prior art. Thus, Applicant requests that the objection to Figure 1 be removed.

Applicant respectfully traverses the objections to the drawings under 37 CFR 1.83(a) because the applicant for a patent is only required to furnish a drawing of his or her invention where necessary for the understanding of the subject matter sought to be patented. *See, e.g.,* 37 CFR 1.81(a). Regarding Figure 1, Applicant submits that examples of drive circuit 30 are well known to the skilled artisan. For example, drive circuit 30 could be any circuit that can provide a signal to control the switching of FET SW1. Thus, further detail regarding drive circuit 30 is not essential for a proper understanding of the disclosed invention by the skilled artisan. Regarding claim 8, Applicant submits that aspects of the claimed invention directed to an associated inductor would be clear to the skilled artisan based upon Applicant's disclosure. *See, e.g.,* Figure 3 and paragraph 0046. Thus, the associated inductor need not be shown in the drawings because it is not necessary for understanding by the skilled artisan of the subject matter sought to be patented. Accordingly, the objections to the drawings under 37 CFR 1.83(a) are improper and Applicant requests that they be removed.

In response to the objection to the abstract, Applicant has provided an amended abstract as indicated on page 2 of this paper. Thus, Applicant requests that the objection to the abstract be removed.

In response to the objections to the specification, Applicant has amended the specification to address the issues presented by the Office Action as indicated on pages 3 and 4 of this paper. As such, Applicant requests that the objections to the specification be removed.

Without acquiescing in the rejection, Applicant submits that the present amendment renders moot the § 112(2) rejections of claims 5-6 and 9. Applicant submits that the term “substantially” does not make claims 5 and 6 unclear to one of skill in the art. Nonetheless, Applicant believes that the removal of the term “substantially” from claims 5 and 6 preserves the original meaning and intended scope of the claims, and therefore elects to so remove the term to advance prosecution. The § 112(2) rejection of claim 9 appears to be based on a misinterpretation of claim 9 as a method claim due to the recitation of a use for the claimed circuit. Applicant submits that the argument provided in the Office Action does not apply to device claims such as claim 9. Nonetheless, Applicant believes that the original meaning and intended scope of the claims is preserved by the present amendment, which removes the use recitation. Reconsideration and withdrawal of the § 112(2) rejections is requested.

Applicant traverses the rejection of claims 1-3 and 10 under 35 U.S.C. § 103(a) over Lai in view of Brakus. According to the Office Action, Lai is deficient in that it does not disclose a signal differentiator circuit. The § 103(a) rejection is therefore predicated on the alleged disclosure of a signal differentiator circuit in the Brakus reference. No reasoning is presented as to why or how the circuit disclosed by Lai would be modified using a signal differentiator circuit as purportedly disclosed by Brakus, and if so how the resulting modification would correspond to Applicant’s claimed invention. The Office Action simply states that Brakus discloses what Lai does not, and does so without providing any reason or citation to any relevant source to justify the substitution. As such, the rejection amounts to no more than a conclusory statement without the requisite support of reason or concrete evidence. This is akin to taking office notice

without documentary evidence, which is prohibited. *See, e.g.*, M.P.E.P. 2144.03 and In re Zurko, 258 F.3d 1379, 1385-86 (Fed. Cir. 2001).

Moreover, there is no attempt made in the Office Action to provide any reason why signal differentiator circuits, as purportedly disclosed by Brakus, would be substituted in the circuits disclosed by Lai to produce an arrangement such as recited in Applicant's claims. In this regard, the Supreme Court has recently noted:

Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known.

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (U.S. 2007)

Without a proper reason, there is no basis on which to formulate the proposed combination. Because no such basis has been provided, the Office Action offers no correspondence between the claimed arrangement and relationship between the recited signal integration circuit and the recited signal differentiator circuit within a hard switching amplitude detector.

Applicant therefore submits that the § 103(a) rejection based on a proposed combination of Lai with Brakus is improper due to lack of correspondence with the recited claim elements including their interrelationships, and due to lack of any reason or support for making the combination beyond mere conclusory statements. For these reasons, Applicant requests reconsideration and withdrawal of the § 103(a) rejection.

Claims 4-9 are rejected under § 103(a) based on the proposed combination of Lai with Brakus and in further view of additional references. None of these references cure the deficiencies underlying the proposed combination of Lai with Brakus as noted above. As such, Applicant submits that the remaining § 103(a) rejections are also improper, and requests that the rejections be reconsidered and withdrawn.

Applicant further notes that none of the cited references, taken alone or in combination, disclose a switch mode power supply circuit such as recited in claim 11 and its dependent claims 12 and 13, that includes a transformer having a primary winding

electrically isolated from a secondary winding, a primary switch for cyclically connecting the primary winding to a power source, a signal output representative of a primary voltage at a junction of the primary winding to the primary switch, and a hard switching amplitude detector connected at a junction of the secondary winding to a secondary switch, the hard switching amplitude detector including the recited signal differentiator circuit and signal integrator circuit along with a control unit. For example, the Lai reference discloses a circuit that includes only a single inductive component coupled to a single switching means (see, e.g., Lai Fig. 1)

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

*Please direct all correspondence to:*

Corporate Patent Counsel  
NXP Intellectual Property & Standards  
1109 McKay Drive; Mail Stop SJ41  
San Jose, CA 95131

CUSTOMER NO. 65913

By:   
Name: Robert J. Crawford  
Reg. No.: 32,122  
651-686-6633  
(NXPS.394PA)

Attachment